

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2002	2PKXL06.0VK1	5.985	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection, Turbocharger, Charge Air Cooler and Engine Control Module			Tractor and Industrial Equipment	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

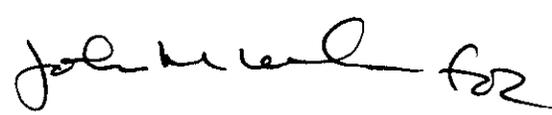
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
75≤KW<130	Tier 1	<b>STD</b>	N/A	9.2	N/A	N/A	N/A	20	15	50
		<b>CERT</b>	--	6.0	--	--	--	3	1	4

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 7<sup>th</sup> day of October 2002.



Allen Lyons, Chief  
 Mobile Source Operations Division

Engine Model Summary Form

Manufacturer: Perkins Engines Company Limited  
 Engine category: Nonroad CI

EPA Engine Family: 2PKXL06.0VK1

Mfr. Family Name: 1106C-E60TA OR CATERPILLAR 3056

Process Code: New Submission

U-R-022-0036

1. Engine Code	2. Engine Model	3. BHP@RPM (SAE Gross)	4. Fuel Rate: mm/stroke @ peak HP (for diesel only)	5. Fuel Rate: (lbs/hr) @ peak HP (for diesels only)	6. Torque @ RPM (SEA Gross)	7. Fuel Rate: mm/stroke@peak torque	8. Fuel Rate: (lbs/hr)@peak torque	9. Emission Control Device Per SAE J1930
1	2188/2200	172.9 @ 2200	88.4	64.4	512.5 @ 1400	104.5	48.0	EM, TAA, DDI
2	2186/2200	150.1 @ 2200	77.7	56.9	476 @ 1400	97.5	45.4	EM, TAA, DDI
3	2250/2000	158.4 @ 2000	88.9	60.7	498 @ 1400	101.7	47.6	EM, TAA, DDI
4	2308/2000	144.8 @ 2000	82.2	53.1	461 @ 1400	101.7	44.5	EM, TAA, DDI
5	2310/2000	170.2 @ 2000	94.1	62.0	512.5 @ 1400	104.0	48.0	EM, TAA, DDI
6	2314/2300	128.7 @ 2300	75.4	57.1	428 @ 1400	93.5	43.1	EM, TAA, DDI
7	2316/2300	147.5 @ 2300	67.5	51.5	472 @ 1400	103.0	47.4	EM, TAA, DDI
8	2178/2000	114.0 @ 2000	67.2	43.5	351 @ 1400	73.6	34.4	EM, TAA, DDI
9	2178/2200	116.0 @ 2200	63.7	45.5	351 @ 1400	73.6	34.4	ECM, EM, TAA, DDI
10	2180/2500	132.0 @ 2500	67.1	55.1	409.3 @ 1400	82.7	38.7	EM, TAA, DDI
11	2182/2200	142.0 @ 2200	74.7	54.9	445 @ 1400	92.0	43.1	EM, TAA, DDI
12	2182/2300	142.0 @ 2300	73.4	56.0	445 @ 1400	92.0	43.1	EM, TAA, DDI
13	2186/2500	150.1 @ 2500	74.5	61.6	476 @ 1400	97.5	45.4	EM, TAA, DDI
14	2190/2500	173.5 @ 2500	84.7	69.0	476.5 @ 1400	96.7	44.8	EM, TAA, DDI
15	2194/2200	161.0 @ 2200	84.0	60.7	473 @ 1400	96.9	44.8	EM, TAA, DDI
16	2310/2200	170.3 @ 2200	88.4	64.4	512.5 @ 1400	104.0	48.0	EM, TAA, DDI
17	2312/2200	167.6 @ 2200	86.9	63.0	512.5 @ 1400	104.0	48.0	EM, TAA, DDI
18	2188/2000	172.9 @ 2000	94.4	62.2	512.5 @ 1400	104.5	48.0	EM, TAA, DDI

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